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SPLtrack 112G Logger with 112L DSP

USER MANUAL

SPLtrack is a noise level measuring system with the ability to present information in real time using a web interface. This allows it to be viewed on any computer with a compatible web browser either locally to the SPLtrack device or via the Internet.

The system consists of a server computer linked to any number of metering units via a local area network (LAN) and to the Internet via a wide area network (WAN).

Each metering unit has a CCCP microphone that conforms to

BS 61672 part 3: Class 1.

The metering units are powered through the LAN cable (PoE) and can therefore be easily installed at optimal locations.

Please read the following document carefully and familiarise yourself with the operation of the product before using. Keep this document to hand so that you can refer to it if necessary.

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1.Safety Advice

Avoid electrical hazards

- Never use to measure on or near live parts.

Product Safety/preserving warranty claims

- Operate the meter only within the parameters specified in the technical data. Do not use force.
- Never store near solvents.
- Observe maximum storage and transport temperature as well as operating temperature.
- Ensure that liquid does not enter the microphone.
- Only take apart the piece of equipment when expressly described in the Instruction Manual for maintenance purposes.
- Warranty claims will no longer be valid if the meter is handled improperly or force is applied.

E-Shield handling and safety

- Please be aware of the potential danger posed by the bird spike at the tip of the product.
- Mishandling of the product may result in injury.
- Always use the foam cover to protect the spike until installation is complete.
- Never throw or drop E-Shield or attempt to use it for any other purpose than a microphone protection system.
- Never use force when assembling. If parts are not threading together smoothly they should be carefully inspected for damage.

2. Product Description

Noise Meter

Supplied with waterproof housing and monopod microphone support for rapid deployment. connectivity options are point to point wireless, local ADSL or 3G. Power can be 100-230V AC, 12V DC or battery. Offsite meters are designed to be zero configuration remote receptors and can be installed and removed very easily.

E-Shield

Designed and manufactured in the UK, the E-Shield is an essential accessory for 1/2" microphones deployed in outdoor locations. Built in high strength plastics and stainless steel, E-Shield provides excellent protection from the elements.

E-Shield has an integrated bird spike and a microphone clamp that enables secure, watertight positioning of the microphone and suitable protection of the microphone during transportation and a 150mm foam windshield that slips over the assembly.

The base of the E-Shield is fitted with a standard 3/8th Microphone thread for use with microphone stands or good quality camera tripods.

3. Specifications

DSP Specifications

Title	Specification
Input	Digital signal processing (DSP), input sample rate 48 kHz, bit depth 24
Range	35 to 130dB SPL
Frequency Response	20 to 60 Hz +0/-0.5 dB; 60 to 20 kHz +0/-0.1 dB
Frequency Weighting	A (default) C,Z(unweighted) selectable
Time weighted (Lp) Measurements	F (fast, time constant 0.125 seconds) or S (slow, time constant 1 second)
Time-averaged level (leq) Measurement Intervals	1 minute, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour
Percentile Level (Ln) Measurements	L10, L90
Percentile (Ln) Measurement intervals	1 minute, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour

Microphone Input

Title	Specification
Compatibility	Constant Current power (CCP) compatible mic
Connector	Female BNC
Power	24 volts DC, 4 milliamperes, constant current, nominal
Data	Compatible with IEEE® 1451.4-2004 TEDS version 1.0, template 27

Server Specifications

Title	Specification
IT Requirements	DHCP internet
File Formats	.jpeg .AAC
Sound Recording	Local storage - 744 hours
Viewing Software Supported (Customer Supplied)	Google Chrome V23+, Internet Explorer V10, Opera V12, Firefox V17, Safari v5+ (Audio Supported)

E-Shield Specifications

Title	Specification
Length	410mm
Diameter (excluding windshield)	40mm
Shipping weight (including windshield)	674g
Materials	Acetal and stainless steel
Windshield diameter/density	180mm / 35ppi foam
Microphone diameter	1/2” / 12.7mm +/- 0.5mm

5. Installation of E-Shield

This manual does not presume to give advice on suitable locations for E-Shield. The rules for installation height, proximity to other objects etc must be respected.

the bottom cap is fitted with a 3/8''UNF threaded hole suitable for attachment to microphone stands and professional camera threads. A 1/4''UNF adapter is also provided for smaller diameter camera tripods.

E-Shield is designed for plumb vertical installation with the bird spike uppermost. This position ensures correct polarisation for the microphone and optimum weather protection.

WARNING: Installation other than in the vertical orientation described can result in damage to the microphone due to water ingress.

Ensure that the tripod or other support device is stable. Be aware that the windShield presents a considerable profile to the wind and can result in unexpected overturning forces. Where possible always peg the feet of tripods or use a stage weight as an anchor.

Place the windshield over the E-shield with the rubber gasket uppermost and push downwards gently until the gasket grips firmly on the taper of the bird spike. it is important that the gasket seals properly. Any damage to the edge of the gasket or the surface of the bird spike can result in rainwater reaching the microphone. In this case replace the gasket and/or the bird spike before use.

The manufacturers do not accept any liability for damage to microphones of any type caused by the assembly or use of this product.

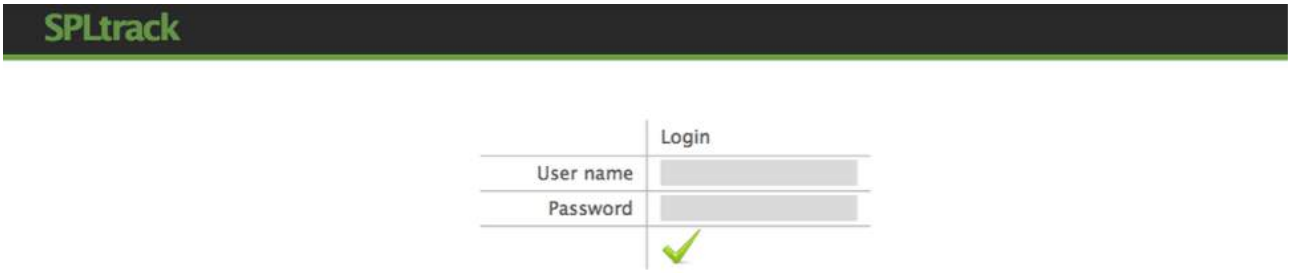
Calibration

The bird spike and the windshield can be removed as one assembly by unscrewing the bird spike. this presents the microphone capsule ready for application of a hand-held calibrator. After calibrating the bird spike and windshield can be replaced as one. take care not to over-tighten.

6. Using the web interface

Web interface

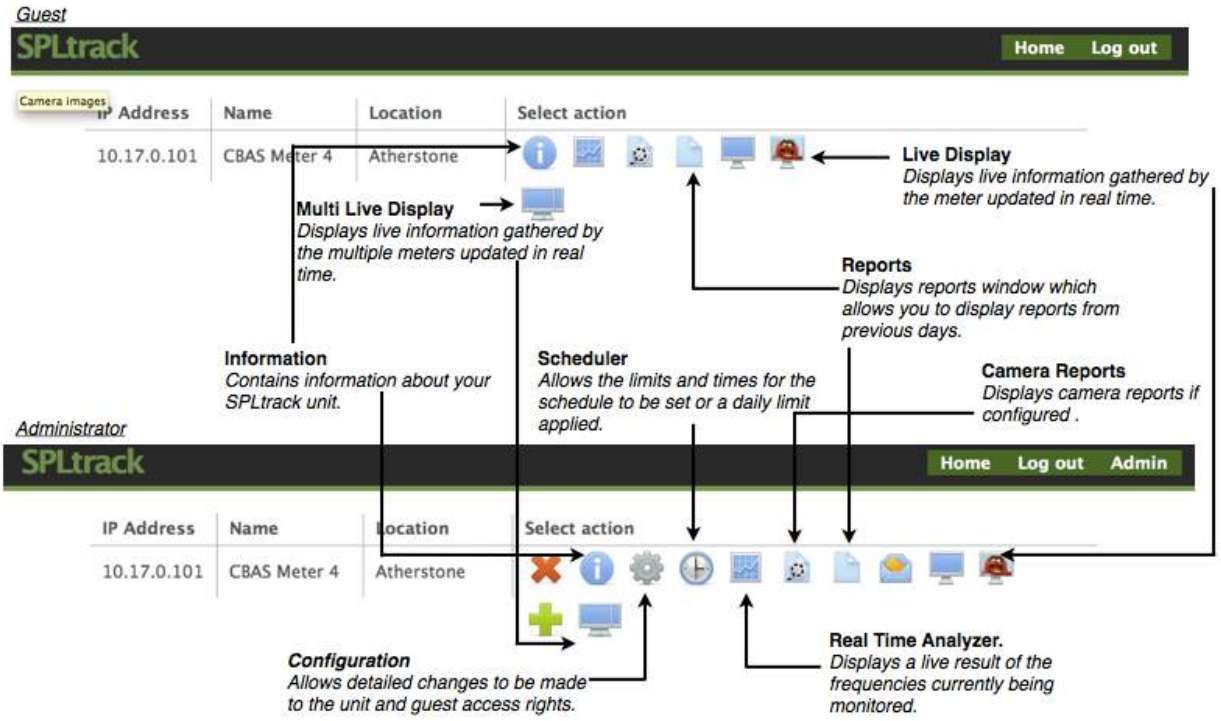
Logon screen



Upon logging in to the system you will be greeted the home screen which shows the list of meters. Administrators may create other administrators and users by clicking the admin button at the top right of the screen. Users may only view according to permissions set by the administrator.

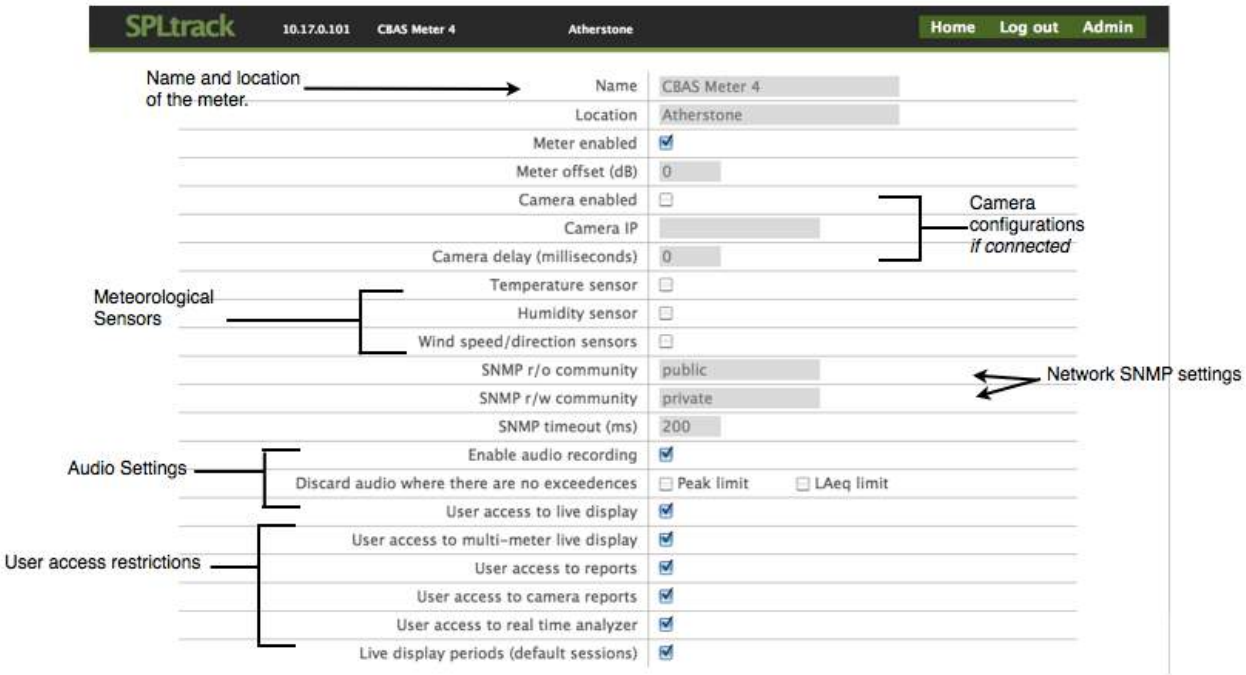
Home screen

SPLtrack contains two different types of user level, guest and administrator.



Configuration

To configure your SPLtrack, an external computer will need to be connected to the same network as the device or onto the internet.

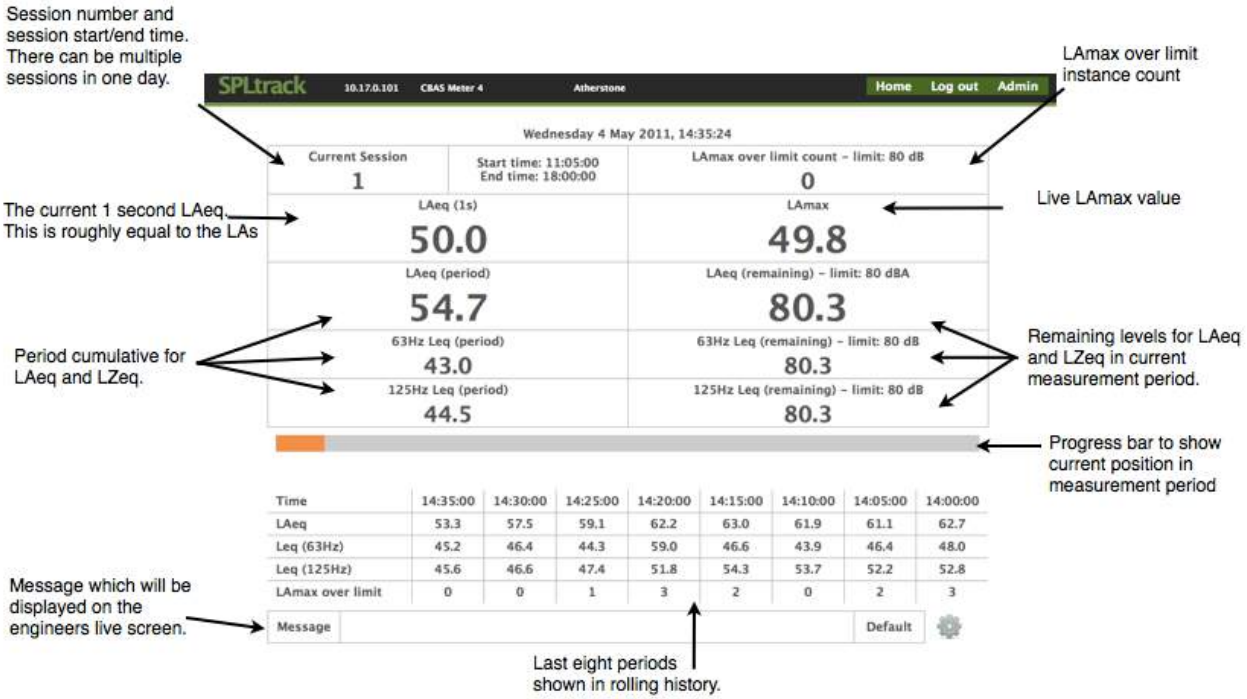


To login to your device type the IP address of the meter or go to the URL of the meter. This information can be found inside the case of the meter or with the attached documentation.

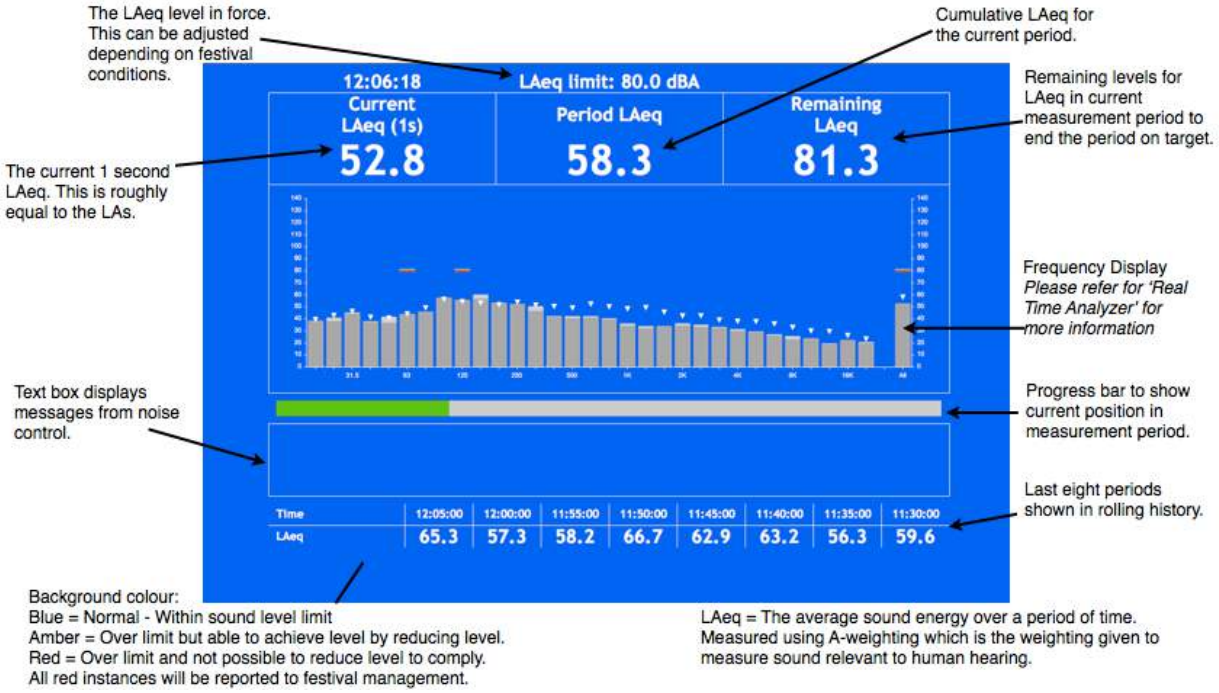
Scheduler

Your SPLtrack meter comes with the function to run different sessions in a day with set criteria. This information is recorded and can be retrieved by using the Reports function of SPLtrack.

Web Display Live Screen


Session number and session start/end time. There can be multiple sessions in one day.
LAmax over limit instance count
SPLtrack
10.17.0.101
CBAS Meter 4
Atherstone
Home
Log out
Admin
Wednesday 4 May 2011, 14:35:24
Current Session
1
Start time: 11:05:00
End time: 18:00:00
LAmax over limit count – limit: 80 dB
0
The current 1 second LAeq. This is roughly equal to the LAs
LAeq (1s)
50.0
LAmax
49.8
Live LAmax value
LAeq (period)
54.7
LAeq (remaining) – limit: 80 dBA
80.3
Period cumulative for LAeq and LZeq.
63Hz Leq (period)
43.0
63Hz Leq (remaining) – limit: 80 dB
80.3
125Hz Leq (period)
44.5
125Hz Leq (remaining) – limit: 80 dB
80.3
Remaining levels for LAeq and LZeq in current measurement period.
Progress bar to show current position in measurement period
Time 14:35:00 14:30:00 14:25:00 14:20:00 14:15:00 14:10:00 14:05:00 14:00:00
LAeq 53.3 57.5 59.1 62.2 63.0 61.9 61.1 62.7
Leq (63Hz) 45.2 46.4 44.3 59.0 46.6 43.9 46.4 48.0
Leq (125Hz) 45.6 46.6 47.4 51.8 54.3 53.7 52.2 52.8
LAmax over limit 0 0 1 3 2 0 2 3
Message which will be displayed on the engineers live screen.
Message
Default
Last eight periods shown in rolling history.

Live Engineer's Screen


The LAeq level in force. This can be adjusted depending on festival conditions.
Cumulative LAeq for the current period.
12:06:18
LAeq limit: 80.0 dBA
Current LAeq (1s)
52.8
Period LAeq
58.3
Remaining LAeq
81.3
Remaining levels for LAeq in current measurement period to end the period on target.
The current 1 second LAeq. This is roughly equal to the LAs.
Frequency Display
Please refer for 'Real Time Analyzer' for more information
Text box displays messages from noise control.
Progress bar to show current position in measurement period.
Last eight periods shown in rolling history.
Time 12:05:00 12:00:00 11:55:00 11:50:00 11:45:00 11:40:00 11:35:00 11:30:00
LAeq 65.3 57.3 58.2 66.7 62.9 63.2 56.3 59.6
Background colour:
Blue = Normal - Within sound level limit
Amber = Over limit but able to achieve level by reducing level.
Red = Over limit and not possible to reduce level to comply.
All red instances will be reported to festival management.
LAeq = The average sound energy over a period of time. Measured using A-weighting which is the weighting given to measure sound relevant to human hearing.

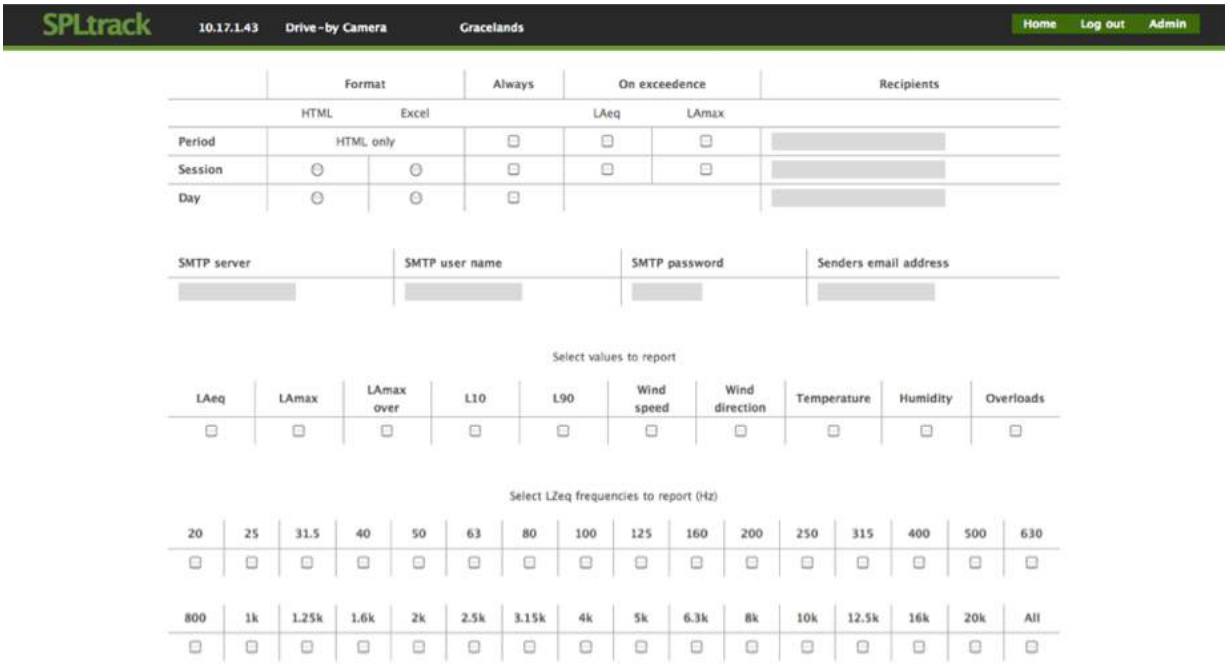
7. Reports

Your SPLtrack can produce daily reports split up depending on the sessions that were running on a selected day.

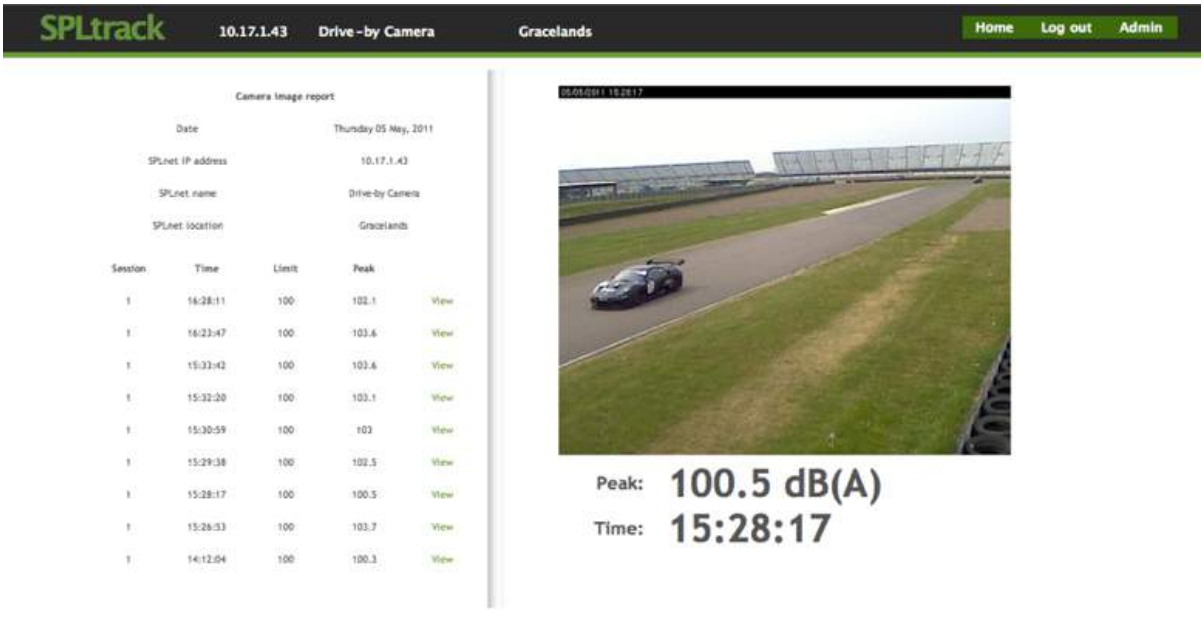
Top produce a daily report select the reports tab from the main menu and enter the date required. Then select the information that is contained in the report.

The report will then be produced with a summary section of the equipment used, information about the session and the desired criteria about the session.

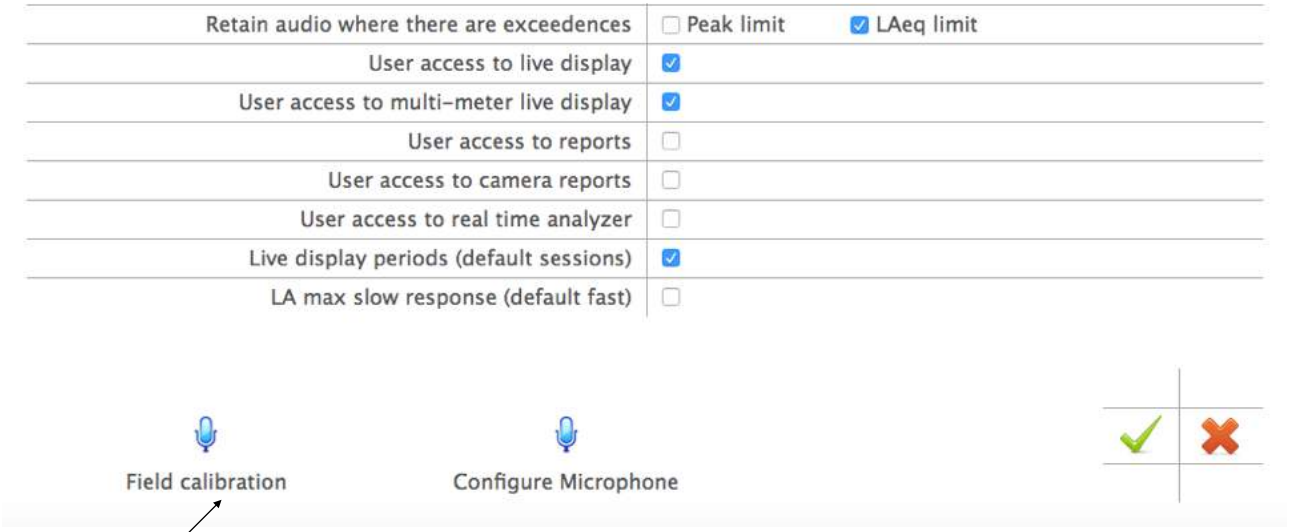
Email Reports



Camera Reports



8. Calibration


Retain audio where there are exceedences
Peak limit
LAeq limit
User access to live display
User access to multi-meter live display
User access to reports
User access to camera reports
User access to real time analyzer
Live display periods (default sessions)
LA max slow response (default fast)
Field calibration
Configure Microphone

The system can be calibrated by clicking the 'Field calibration' button.

8. Support

For technical support with an SPLtrack product please use the SPLtrack ticketing system. The link can be found in the units original documentation.

Alternatively, please contact us directly.

Email: support@spltrack.co.uk

Tel: 01455 502400

9. Frequently Asked Questions

Please browse the questions below for frequently asked questions about SPLtrack products. If this section doesn't answer your question please contact support.

How does SPLtrack send alerts and reports?

Alerts referencing real-time conditions are always sent by the SPLtrack meter directly via our email servers. They are therefore transmitted in real-time. Reports can be transmitted direct from the meters on demand or on a scheduled basis, however when the device is subscribed to SPLcloud, scheduled reporting is dealt with by the data centre. SPLcloud provides much more comprehensive reporting and charting functions than a stand-alone SPLtrack meter. In all cases, to receive alerts and reports, the SPLtrack device must be connected to the Internet.

Can I use SPLtrack without an internet connection?

Yes. An SPLtrack device can be used without an Internet connection, however to view live information or to access data reports it is then necessary to have a physical connection to the meter. Using an Ethernet cable or local wireless connection all of the standard meter features are accessible, however unless some form of Internet access is available the meter cannot send reports and alerts via e-mail.

How do I deploy live screens?

In the Live Screen Management Menu click on 'Provision Live Screen'. Select the layout template, select a header if you'd like one and give the screen a name. You may also upload a logo that can be selected to appear on the live screen. Important: Logos must be within a panel 72dpi 200 pixels wide x 150 pixels tall and must be in .jpg, .gif or .png format. When you action the screen by clicking 'Go to step 2' you'll see a drag and drop designer with the meters and available objects along the bottom and the empty template above. Simply select the meter source and drag the view you want into any empty panel in the template. If you select 'widgets' you have a selection of weather, RSS, Twitter and a logo (The one you uploaded in stage 1) to drop into the widget bar at the bottom of the panel. Clicking on the 'save' button stores the Live Screen in the 'List all Live Screens' table. the URL that has been created there can be used to access the Live Screen you have designed directly without logging in to the portal. Alternatively you may set up a live screen log-in under User Management that requires authentication.

How do I create reports?

In the Reporting menu click 'Create Report' or 'Create Chart'. Select the metrics you want, the date(s) for the report and the meters that should be included. You have the option to save that selection as a template for use in the 'Quick Report' section on the dashboard.

What if I delete a project?

If you delete a project SPLcloud will send you an e-mail confirming that you have deleted the project from your user area. The data will be held for a period of three months during which you can ask us to restore it. Deleted projects are removed from the portal completely after three months and are gone forever. You may leave projects on the portal for as long as you like in which case the data is preserved.

What happens if a meter loses Internet access for a time?

As soon as the meter reconnects all of the data logged during the disconnection period is synchronised with SPLtrack cloud, so nothing is lost. If the meter has been disconnected for several days it may take a little while for the meter to be updated in the cloud. We are working on a notification to tell users whether the meter is up to date or if not, how much data needs to be synchronised.

What happens when I disconnect a meter?

All of the data logged up to the point that the meter was disconnected remains in the SPLcloud portal as a virtual copy of the device. The data history, up to the point at which it was disconnected, is available for reports and the meter can still be used in project reporting. Obviously the live elements would no longer be accessible.